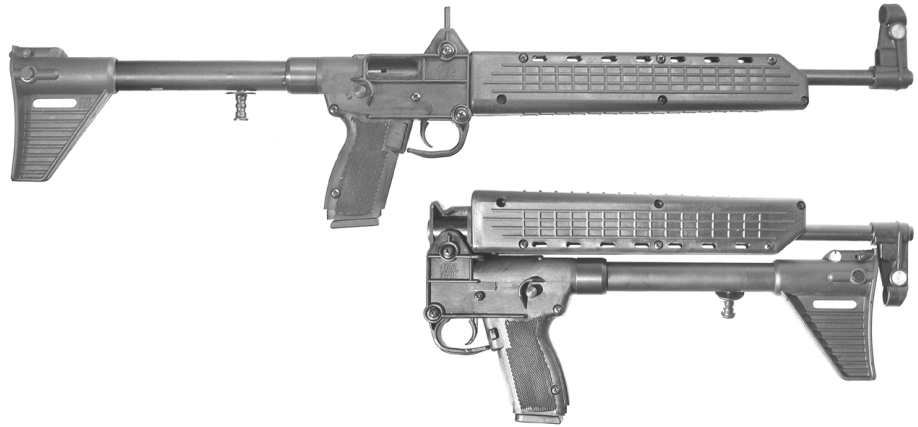
KELTEC CNC INDUSTRIES INC

PO BOX 236009
COCOA FL 32923

Owned Made Parts ©

SUB RIFLE 2000



SAFETY, INSTRUCTION, AND PARTS MANUAL

KEL- TEC SUB RIFLE

SAFETY, INSTRUCTION & PARTS MANUAL

STATEMENT OF LIABILITY

This rifle may be classified as a dangerous weapon and is surrendered by KEL- TEC CNC INDUSTRIES INC. with the understanding that the purchaser assumes all liability resulting from unsafe handling or any action that constitutes a violation of any applicable laws or regulations. Firearms can cause serious injury and death. Safety must be the prime consideration of anyone who handles firearms. Always treat a firearm as though it were loaded. Always keep the muzzle pointed in a safe direction.

In owning a firearm, you are responsible for the firearm's safety and security. Always secure firearms from children.

READ THESE INSTRUCTIONS AND WARNINGS CAREFULLY, BE SURE YOU UNDERSTAND THESE INSTRUCTIONS AND WARNINGS BEFORE USING THIS FIREARM.

This SAFETY, INSTRUCTION & PARTS MANUAL should always accompany this firearm and be transferred with it upon change of ownership or when the firearm is loaned or presented to another person. A copy of the SAFETY, INSTRUCTION & PARTS MANUAL is available FREE upon request.

READ AND CAREFULLY FOLLOW THESE WARNINGS AND INSTRUCTIONS

These warnings and instructions are provided to assure the safe functioning of the rifle. Failure to heed them may result in improper functioning and serious injury.

Kel-Tec firearms are designed to function reliably with proper care and knowledgeable use. Do not use your firearm unless you fully understand these instructions, and the safe operation of your firearm.

Only safe gun-handling habits will ensure the safe use of your firearm. This is your responsibility. Accidents are the result of violating the rules of safe gun handling and common sense.

Before handling a firearm, understand its operation.

Never accept or pick-up a firearm without checking the magazine, and the chamber to assure the weapon is empty. Do not trust the extractor to clear the chamber, look and feel.

Always make sure the muzzle is pointed in a safe direction at all times.

Never point a firearm at anyone or anything you do not intend to shoot.

Make sure your "audience" is always 5 feet in back of you, not next to you when firing.

Keep your firearm unloaded when not in use.

Never keep a loaded firearm in the home or vehicle. Never store a firearm with a cartridge in the chamber.

Never store firearms and ammunition together, keep them locked up and away from children.

Never touch the trigger when working the action. Never alter

any components of your firearm.

Never take medications, drugs, or alcohol when handling firearms

Never load or unload a firearm without assuring the muzzle is pointed in a safe direction.

Never load a firearm except immediately before shooting.

SAFE GUN HANDLING IS YOUR RESPONSIBILITY

The SUB rifle is designed and chambered for a specific cartridge. The type of ammunition is stated on the right side of the receiver. Do not use any other ammunition.

Only use commercially manufactured ammunition, clean, dry, and in good condition. Never use
Non-standard, reloaded or damaged cartridges.

Never use ammunition where the pressure levels exceed industry standards. Kel-Tec guns are
manufactured from high quality materials. They will provide extended service life. However, all warranties, expressed or implied, are voided and Kel- Tec will not be liable for property damage or personal injury and consequential damages, if faulty ammunition is used in Kel-Tec centerfire firearms.

Discharging firearms in poorly ventilated areas, cleaning firearms, or handling ammunition may result in exposure to lead and other substances known to cause birth defects, reproductive harm, and other
serious physical injury. Have adequate ventilation at all times. Wash hands thoroughly after exposure.

Never discharge a firearm without proper shooting glasses and ear protection. Never shoot at any water surface or any surface where a ricochet can occur.

Never shoot until you are sure of your backstop and what lies beyond it.

If the gun does not discharge after pulling the trigger, do not change its direction for at least 30 seconds, you could be having a "hang fire".

Do not allow a firearm to be used by individuals who do not understand its safe operation and the rules of safe gun handling.

Be sure all accessories, such as holsters and grips, are compatible with the firearm and that the accessories do not interfere with safe operation.

When transporting your firearm, be sure your firearm is unloaded and that the action is open.

If you do not understand how to operate any of our products or have any questions about their safe handling, please write us.

Always be aware of other people so that they cannot accidentally walk into the line of fire. When firing on a target range, be alert and follow the range officer's commands. Never cross obstacles such as fences or streams with a loaded firearm.

INTRODUCTION

The SUB 2000 is a semi-automatic rifle chambered for the 9 mm Luger or the .40 cal. S&W cartridge. Different versions of the SUB 2000 rifle will accept most double column handgun magazines, e.g. S&W, Glock or Beretta. By rotating the barrel upwards and back, the SUB rifle can instantly be reduced to a size of 16 x 7 inches to facilitate secure storage.

The small size, light weight, and the use of a pistol cartridge would imply the prefix "sub". Thus we have found it appropriate to classify our firearm a "sub-rifle". The SUB 2000 rifle is intended as a compliment to the handgun with which it would have full interchangeability in ammunition and magazines.

The SUB rifle will have much better accuracy and deliver higher muzzle energy than the short barreled pistol. Thus, the SUB rifle has a greatly extended range compared to a handgun. The superior precision is also very useful against small or partially covered targets at shorter range.

CONSTRUCTION

The **receiver** is made of an impact modified glass reinforced Zytel. The front end houses a hinge block holding the barrel and rear sight.

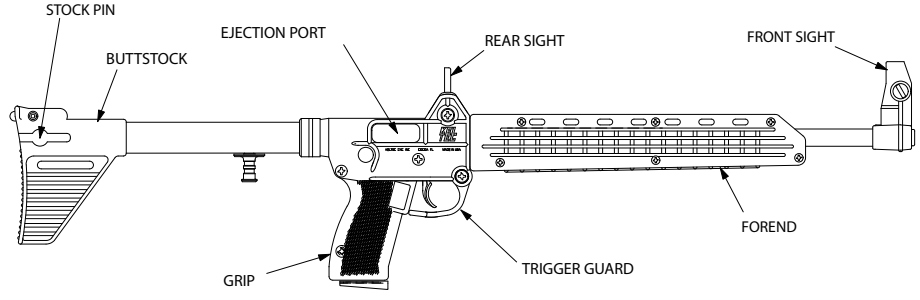
This block is securely locked in place by a swiveling trigger guard. The receiver rigidly attaches to the stock by multiple lugs. The bottom forms the grip and also accepting different magazines according to the version specified. The receiver also houses the firing mechanism.

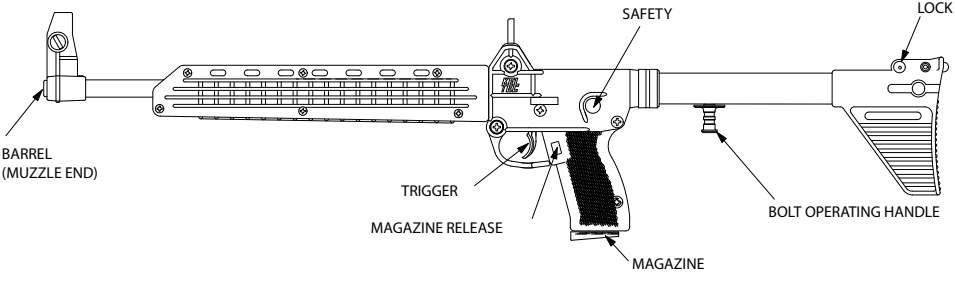
The **barrel** has spring loaded collar to ensure an accurate lock to the receiver, a polymer forend and a fully adjustable front sight. The forend is designed to house batteries or other devices.

The tubular steel **stock** contains the bolt and is ended by the polymer butt stock.

The heavy two-piece machined steel **bolt** holds the firing pin, the extractor, and has the operating handle on the bottom. A captive guide recoil spring with buffer actuates the bolt. The long bolt travel allows for very large functioning marginals.

The **firing mechanism** is of conventional single action type. It has a positive disconnector, a push bolt safety that blocks the sear and disengages the trigger bar. The hardened steel ejector is internal and also holds the engraved serial number.


STOCK PIN
BUTTSTOCK
EJECTION PORT
REAR SIGHT
FRONT SIGHT
FORWARD
FORWARD
FOREND
GRIP
TRIGGER GUARD

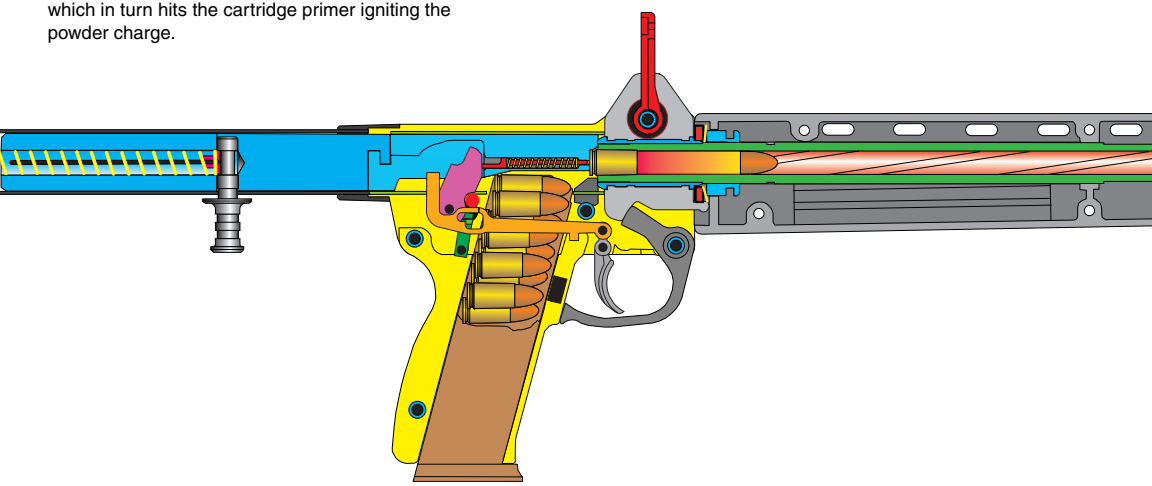

SAFETY
LOCK
FORWARD
FORWARD
BARREL
(MUZZLE END)
TRIGGER
MAGAZINE RELEASE
BOLT OPERATING HANDLE
MAGAZINE

Functioning

At the start of this cycle the weapon is assumed already loaded, full magazine inserted, the safety off and ready to fire.

When the SUB rifle's trigger is pulled, the trigger axis is rotated forward together with the trigger bar which engages the sear. The sear disengages the cocked hammer which rotates forward to strike the firing pin which in turn hits the cartridge primer igniting the powder charge.

The hot expanding powder gas drives the bullet forward through the barrel and simultaneously drives the relatively heavy bolt backwards. This is called blowback operation.

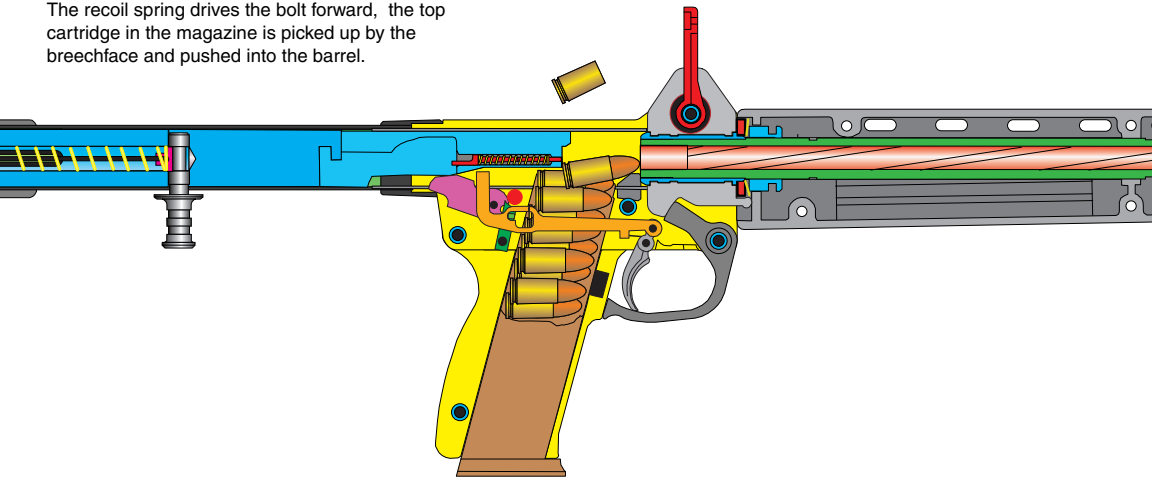


After about 3/16 (5 mm) of bolt travel (or .0013 seconds) the bullet exits the muzzle. The pressure in the barrel has now dropped to a low level.

On it's way backwards, the bolt cams down the trigger bar, ejects the empty case and cocks the hammer . The bolt is gradually slowed down by the recoil spring until stopped by the buffer. The recoil spring drives the bolt forward, the top cartridge in the magazine is picked up by the breechface and pushed into the barrel.

Close to battery the disconnector engages a cut in the bolt and allowes the trigger bar to engage the sear again.

When the trigger is released the trigger bar moves backwards and behind the sear. The SUB rifle is then ready for the next shot.

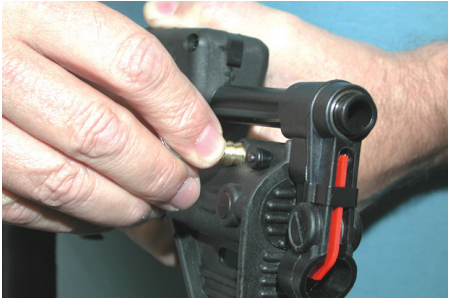


INSTRUCTIONS FOR USE

The normal storage and carrying condition of the SUB rifle is unloaded with the barrel folded and locked on top of the receiver.

Barrel operations

The barrel is held in the backwards position by a deployment lock from the stock against the front sight. To unlock, insert the key, turn it half a turn and push the buttons forward. Grip the barrel or forend and pull up. The barrel rotation is complete when engaged in position by the trigger guard. Be sure that the guard snaps back into place for a positive lock and do not impede its action with your fingers. Check that the trigger guard has returned to the closed position.



The rear sight is automatically extended when unfolding the barrel. It can only be retracted by re-folding the barrel.

To release the barrel, push down the rear of the trigger guard and fold the barrel up and backwards until it snaps into the reversed position. Lock it by turning the key half a turn.

Never fold or unfold the barrel with a round in the chamber, this could cause damage to the action.

SAFETY

To achieve highest operator safety, combined with ease of handling, the SUB rifle's manual safety, when applied, positively locks the sear to the hammer and disconnects the trigger bar. As with most modern self loading rifles the safety can only be applied when the hammer is cocked.

Obviously the safest condition of the rifle is folded, locked and unloaded. Also considering unauthorized operation, other modes of storing or carrying will gradually improve readiness at the cost of safety.

Never insert a round into the chamber of a folded barrel or operate the bolt in this condition.

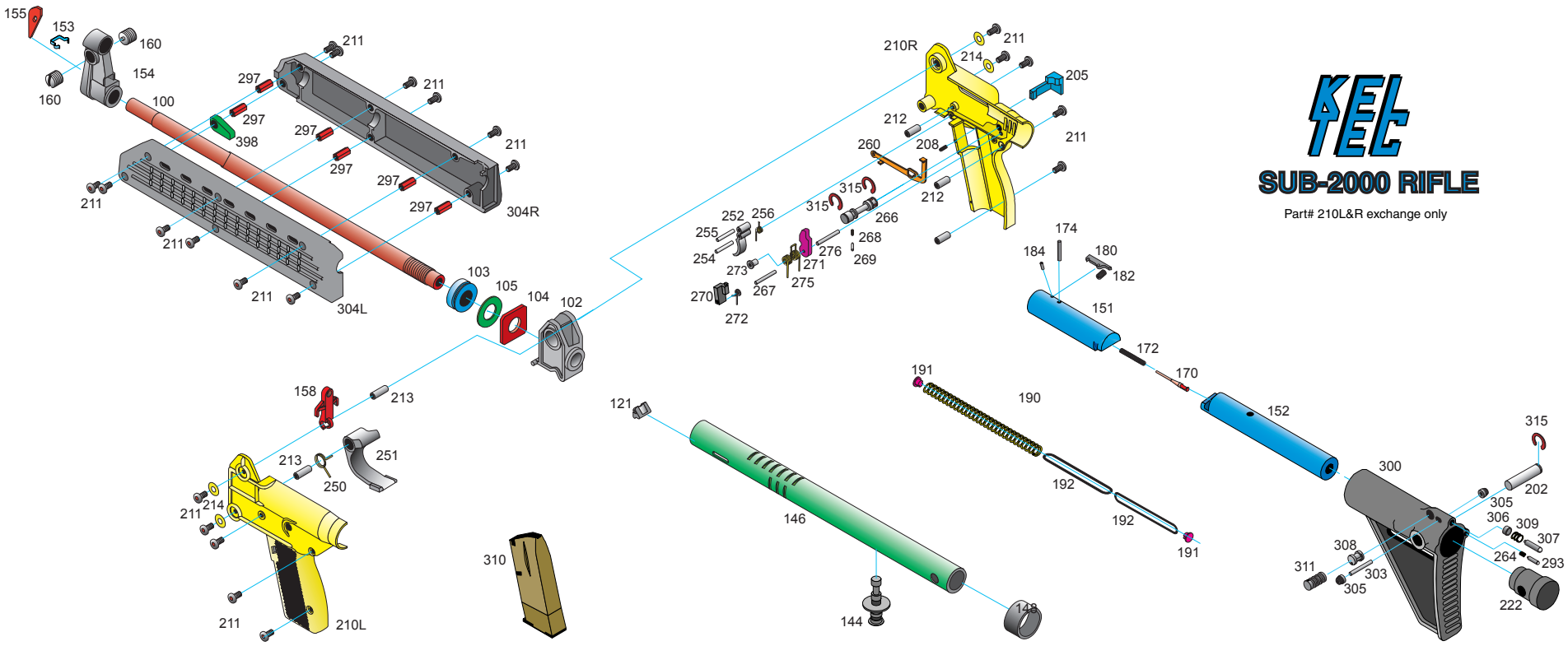
MALFUNCTIONING

Proper function of your SUB rifle is directly related to maintenance and care, and to the ammunition you use. Some of the more common types of malfunctions which may occur are as follows:

Misfire: Failure of the cartridge to ignite when the hammer falls. If this occurs, keep firearm pointed in a safe direction, wait 30 seconds to avoid hangfires, operate the bolt manually and continue shooting. If necessary change the magazine. The most common cause of misfire is faulty ammunition.

Failure to Feed: This occurs when a cartridge has been fed from a magazine but not fully chambered. If this occurs, keep the firearm pointed in a safe direction, remove that cartridge, operate the bolt manually and continue shooting. If necessary change the magazine. The most common causes are dirt or foreign objects impeding the magazine follower. Improperly crimped cartridges are another cause.

Failure to Eject or Extract: A fired case is not fully extracted from the chamber or ejected from the rifle. Again, keep the firearm pointed in a safe direction, clear the gun by operating the bolt, remove the case and continue. If necessary change the magazine. The most common causes are a damaged extractor, ejector or ammunition. Improperly loaded or sized cartridges can cause this also. If any of the above problems are not solved by cleaning or by use of other brands of ammunition, stop firing, unload and return the SUB rifle to our service department.


KEL
SUB-2000 RIFLE
Part# 210L&R exchange only
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Firing

With the muzzle pointed in a safe direction and your finger outside the trigger guard, take aim at a safe target, put the safety into fire position and squeeze the trigger until round is fired. Release trigger and you are ready to fire another round. Upon firing, the bolt moves rearward extracting and ejecting the fired round and returns to forward position feeding another round automatically while doing so. This sequence can be repeated until the last round has been fired. The SUB 2000 has no automatic stop, but the bolt can be locked in back position by rotating the operating handle to the left.

Unloading

To unload the SUB rifle, push in the magazine catch, remove the magazine and briskly pull the bolt back to extract the round in the chamber. Do not obstruct the ejector port and keep fingers away from trigger and muzzle. Lock the bolt in back position and visually inspect the chamber to make sure it is empty. Push the remaining cartridges in the magazine forward and out.

Loading

To load, fill the magazine by pressing a cartridge downward on the forward portion of the magazine follower (or downward on the case of the previously loaded cartridge) and sliding the cartridge fully under the lips of the magazine until the cartridge is all the way back in the magazine.

Repeat the steps above for the number of cartridges you wish to load, up to the magazine capacity. Do not attempt to load your magazine with more than the specified number of rounds because doing so can cause a feeding malfunction.

Hold the rifle in one hand with the muzzle pointing in a safe direction and with your finger off the trigger and outside the trigger guard. Insert the loaded magazine into the grip until it is locked in place. Check to assure that the magazine is secure. Pull the bolt back and release. If the bolt is already back, pull back a short distance rotate right and allow the bolt to carry fully forward. This strips a round from the magazine and seats it in the barrel chamber.

If you wish to restore the magazine in your rifle to full capacity, press the magazine catch and remove the magazine to load the missing round. **Never load rounds directly into the chamber.** Remember to keep your rifle pointed in a safe direction under all conditions and always keep your finger off the trigger and outside the trigger guard until ready to fire.

Disassembly
Unload your SUB rifle. Make sure the bolt is in forward position, hammer cocked and on safe.

With a cartridge or other pointed object push and then pull the stock pin (but do not remove) until the buffer is free to be removed.

Pull the bolt back by the operating handle and catch the recoil spring. The operating handle can now be pulled out downwards letting the bolt fall out.

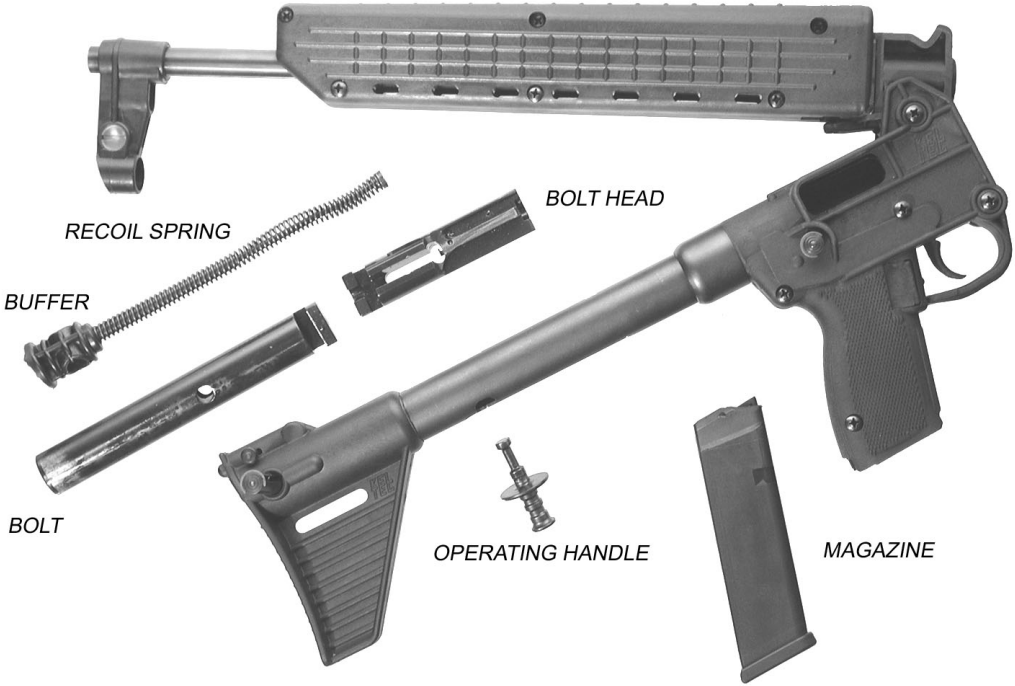
Push out the bolt pin and separate the two bolt components. Fold the barrel up for cleaning or inspection. Further disassembly is not required for normal operations.

Do not release the hammer with the bolt removed. This will make the SUB rifle totally inoperable.

We strongly discourage from unscrewing the stock collar, barrel or removing the front sight. These parts are assembled by special tools and compounds.

Assembly
Turn the barrel into forward position. Put together the two bolt halves with the pin. Insert the bolt into the stock and line up the operating handle hole with the slot below. Insert the handle fully. Put in the recoil spring with the curvy end first.

Make certain that the recoil spring and buffer are aligned when inserting the buffer. Move the bolt to forward position by the operating handle. Line up the buffer key with the slot in the butt plate. Push the stock pin completely back in. Work the bolt a few times to check the action.


RECOIL SPRING
BOLT HEAD
BUFFER
BOLT
OPERATING HANDLE
MAGAZINE

BALLISTICS

Your SUB rifle has been test fired and sighted in at 100 yards before leaving the factory. However, due to different ammunitions, positions, shooters etc. your rifle should be zeroed to your personal preference.

As seen from the graph on page 16 the bullet first crosses the line of sight at about 20 yards. This is normally sufficient, but if 100 yards are available the results should be verified at the actual range. Within this range the trajectory is flat, deviating less than two inches from the line of sight. At close range and high power ammunition the SUB rifle has the energy of a .357 Magnum.

The maximum range of a pistol bullet is about one mile. At 200 yards the projectile still has more energy than a .380 ACP fired at point blank range. However, at this distance the mid range trajectory is about 18" and the wind deflection is considerable when compared to a full power rifle.

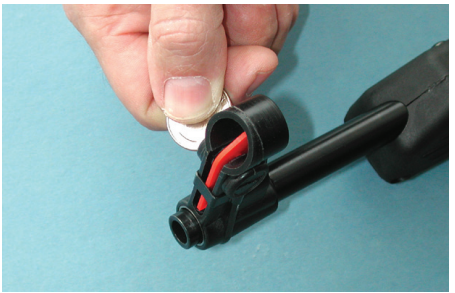
It should be noted that ballistic precision of the pistol cartridge has a wide variation. During extensive tests of commercial ammunition in a Mann barrel, the best 10 shot groups were about 2.5 m.o.a., the worst up to 10. Premium US manufacture hollowpoints of medium bullet weight performed best. Worst were US generic FMJ and non-european imports.

SIGHT ADJUSTMENT

Use a coin or large screwdriver to adjust the windage by the two screws on each side of the front sight block. Before turning a screw clockwise (in) the opposite must be backed out the same amount. 1/8 of a turn changes the point of impact 1" at 100 yards (1 m.o.a.) One full turn 8 m.o.a. By turning the left screw clockwise (in) the sight moves to the right and the point of impact to the left.

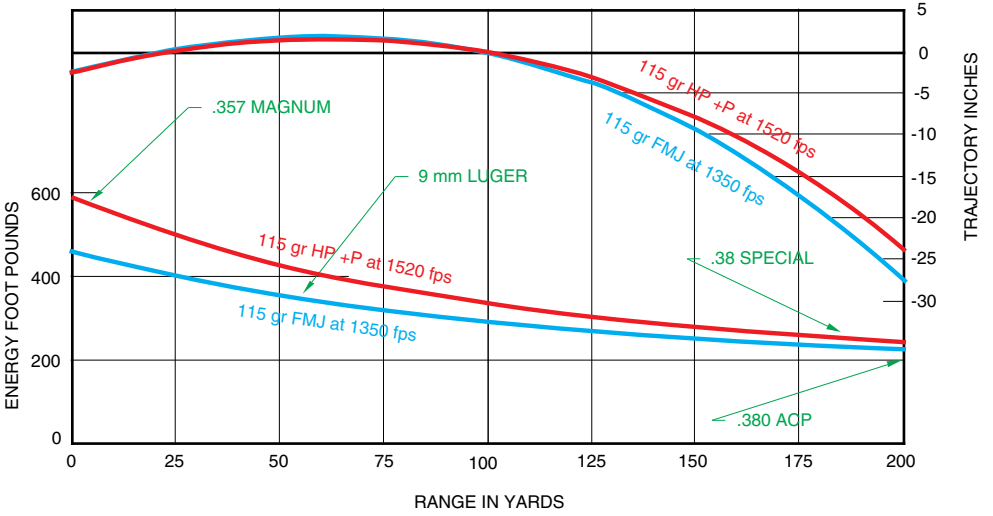
Before tightening the screws, the post may be pushed up or down to adjust elevation. .004" will change the impact 1 m.o.a.

DO NOT OVERTIGHTEN.



BALLISTICS OF TYPICAL 9 mm LUGER CARTRIDGES FIRED IN A 16" BARREL

THE ENERGY EQUIVALENT OF SOME OTHER POPULAR CARTRIDGES
FIRED IN HANDGUNS AT POINT BLANK RANGE ARE SHOWN IN GREEN



MAINTENANCE

Your rifle is a precision instrument and to insure reliable function, it is necessary to follow a routine maintenance procedure. After firing your rifle, be sure to unload it following the procedure outlined in the section entitled "Unloading" before any cleaning or maintenance procedure.

Your rifle should be cleaned by brushing the barrel bore and chamber with a good powder- removing solvent and bore brush. Wipe the areas clean with patches or a swab. Using a small brush dipped in solvent, remove all deposits from around the breech of the barrel, and chamber, extractor and adjacent areas which have been subjected to the action of powder or primer residue. Remove any residue on the frame with light brushing and a solvent. After cleaning the entire gun, use a cloth to apply a light coating of high quality gun oil to all external surfaces and wipe clean.

For a more detailed cleaning, the rifle should be disassembled as described in the section "Disassembly".

SERVICE

Should your SUB rifle require adjustment, refinishing, or repair, it should be returned unloaded to the factory. In shipping the SUB rifle, be sure to adhere to the following rules:

Individuals who wish to return the firearm for service can do so by shipping via UPS prepaid. No return authorization number is required.

Include a letter of instruction, full name, address, phone number and the gun's serial number. This will insure prompt service and handling. Once your rifle has been received, anything other than warranty work, will receive a quotation. You will be notified of full charges and no work will commence before receiving your approval of our quotation. Also see Warranty Page for further instructions.

All quotations are payable by C.O.D., VISA, M.C. or money orders only. No personal checks accepted. Please return your SUB rifle to:

Kel-Tec CNC, Inc. Service Dept.

1475 Cox Road

Cocoa FL 32926

WARRANTY

This warranty is granted by Kel-Tec CNC Industries, Inc. P.O. Box 236009, Cocoa, FL 32923. This lifetime warranty is effective from the date of purchase and applies to the original owner of a Kel-Tec SUB rifle.

Kel-Tec firearms are warranted to be free from defects in material and workmanship. Any such defects of which Kel-Tec receives written notice by the original owner, will be remedied by Kel-Tec without charge within a reasonable time after such notification and delivery of the product as provided below.

Warranty claims (in writing) and the gun concerned should be delivered (transportation charges pre-paid) to:

- Kel-Tec CNC, Inc
- Service Department
- 1475 Cox Road
- Cocoa, FL 32926.

No return authorization number is required. In addition, a copy of a bill of sale in the owner's name, or a copy of ATF Form 4473, indicating date of purchase must be included.

In order to expedite service, warranty claims should state the model and serial number of the gun concerned and a description of the difficulty experienced. It is recommended that shipments be insured by the owner, since Kel-Tec will accept no responsibility for loss or damage in transit.

Transportation and insurance charges for return to owner will be paid by Kel-Tec if the claim is covered by the warranty.

Under no circumstances shall Kel-Tec be responsible for incidental or consequential damages with respect to economic loss or injury or property damage, whether as a result of breach of express or implied warranty, negligence or otherwise. Some states do not allow the exclusion or limitation or incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Kel-Tec will not be responsible for defects resulting from careless handling, unauthorized adjustments or modifications, defective or improper ammunition, corrosion, neglect, abuse, ordinary wear and tear, or unreasonable use.

KEL-TEC CNC INDUSTRIES INC.

COCOA FLORIDA USA
www.kel-tec.com

SUB 2000 RIFLE PARTS LIST

□100 Barrel
□102 Hinge
□103 Lock Nut
□104 Lock Nut Washer
□105 Washer
□121 Feed Ramp
□144 Operating Handle
□146 Bolt Tube
□148 Collar
□151 Bolt Head
□152 Bolt
□153 Front Sight Clip
□154 Front Sight Body
□155 Front Sight Post
□158 Rear Sight
□160 Windage Screws
□170 Firing Pin
□172 Firing Pin Spring
□174 Firing Pin Pin
□180 Extractor
□182 Extractor Spring
184 Extractor Pin

190 Recoil Spring
191 Recoil Spring Plug
192 Recoil Spring Guide
□202 Stock Pin
□205 Magazine Catches
□208 Magazine Catch Spring
□210L Receiver Left *
□210R Receiver Right*
□211 Receiver Screws
□212 Receiver Nut 16
□213 Receiver Nut 27
214 Washer
□222 Buffer
□250 Trigger Guard Spring
□251 Trigger Guard
□252 Trigger
□254 Trigger Axis
□255 Trigger Bar Pin
□256 Trigger Spring
□260 Trigger Bar
□264 Stock Pin Spring
□266 Safety
□267 Sear Axis

268 Safety Spring
□269 Safety Pin
270 Sear
□271 Hammer
□272 Sear Spring
□273 Hammer Bushing
275 Hammer Spring
□276 Hammer Axis
□293 Stock Pin Pin
□297 Forend Nuts
□300 Butt Stock
□303 Button Shaft
□304 Forend L/R
□305 Button
□306 Sleeve
□307 Pin Lock
□308 Lock Shaft
□309 Lock Spring
□310 Magazines
□311 Key
□315 Safety E-rings
□398 Forend insert
□410 Manual (Free)